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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/701,494

Applicant(s)

LEE ET AL.

Examiner

GREG BORSETTI

Art Unit

2626

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Claims 1-4, 7-9 are pending.

Response to Arguments

2. Applicant argues "Although Kishinsky does discuss an application-programming-interface for interfacing a software driver to an object-oriented-programming-system, this disclosure in Kishinsky does not obviate the structure recited in claim 1 of the CTI control module comprising a CTI API including CTI control functions for the CTI board...In view of the foregoing, claim 1 recites a structure where the CTI control functions are configured as a work unit capable of performing the basic telephone actions and are then called in order through the working section 535 to perform the basic telephone actions. Specifically, claim 1 recites that the CTI control module comprises a CTI API including CTI control functions for the CTI board. As noted above, although the relied upon references may discuss variations of an API, they do not discuss the configuration recited in claim 1, which provides that the simultaneous interpretation system of the present invention controls all the operations associated with the interactive simultaneous interpretation services in accordance with the interpretation scenario in which the actions to be performed at the next stages are defined beforehand. Therefore, the talker can freely speak by telephone with the listener who uses a different language and is remotely located." (Remarks, Page 6, ¶ 2-3) The Examiner disagrees. Wood provides the CTI control functions that are known

beforehand (call, hang-up, etc) and are executable at a high level as opposed to the low level command. Kishinsky then further provides an API specifically for operating the hardware (according to a software driver) from the object oriented system. Object oriented system are specifically directed to using code based on objects for reusing code at a high level to avoid having to individually call sub-functions at a low level repeatedly. The combination of Nagai (which provides the language translation), Wood, and Kishinsky, therefore teaches the claimed subject matter in combination. Therefore, the argument is not considered to be persuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, and 7- 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. (US Patent # 6636587) in view of Wood (US Patent #6091808) and further in view of Kishinsky (US Patent # 6286033).

As per claim 1, Nagai discloses a third-party call control type simultaneous interpretation system, comprising:

a CTI (Computer-Telephony Integration) board for establishing a traffic channel between a talker and a listener (Nagai, column 6 lines 52-57);

a CTI control module for generating an event in response to a button signal input through the CTI board to control the CTI board as a job unit comprising CTI control functions for performing a basic telephone action (Nagai, column 18 line 67 – column 2 line 15, *the PBX/ACD control program detects a transmission from the outside, for example from a telephone, and informs the system execution management program of the detection of the transmission message (generates an event). The system then starts the telephony agent program in order to send the transmission to the receiver (basic telephone action). Since the transmission originated from a telephone, it is inherent that the event was generated in response to a button signal input through the CTI board*);

an interpretation module for recognizing a voice of the talker/listener input through the CTI board and translating the voice into a predetermined language (Nagai, column 8 lines 62-67 and column 9 lines 14-15, *the system recognizes an incoming voice with ASR processing board, then uses a program stored in memory to perform language translation*); and

a main control module for controlling an action of the CTI control module in accordance with a predetermined interpretation scenario that includes a current state, a current state conversion action selected according to the event generated in the CTI module and a basic telephone action to be executed at a next state (Nagai, column 18 line 67 – column 21 line 65, *the system execution management program (main control module) controls the telephony agent program and the PBX/ACD program (part of the*

CTI control module), where the telephony agent program routes a transmission, for example to the receiver's telephone (basic telephone action), that satisfies contact conditions (predetermined interpretation scenario) based on the coincident contact adjustment state (current state and current state conversion action) and the PBC/ACD program detection and notification of receipt of a transmission message),

wherein the main control module includes an interpretation scenario management section for selecting the current state conversion action and the basic telephone action for the next state in accordance with the predetermined interpretation scenario when the event is generated in the CTI module, and a state conversion section for converting the current state into the next state in response to the current state conversion action selected by the interpretation scenario management section (Nagai, column 18 line 67 – column 21 line 65, *the system execution management program uses a contact manager (interpretation scenario management section) which includes user contact information indicating contact conditions (predetermined interpretation scenario), such as the sending and receiving devices. Once the PBX/ACD program provides a notification of a received transmission (event), the system execution management program uses the contact manager and the telephony agent program to determine the contact conditions and check for needed media conversions, depending on the sending and receiving devices and the type of message received, before forwarding the transmission to the receiver (telephone action for the next state),*

wherein the current state and the event relate to the translating by the interpretation module or a transmission of the translated voice (Nagai, column 21, lines

43-64, ...*That is, a process for adding designated processing to the transmission message on the work memory 305, on the groupware server 203, on the PBX/ACD 202 or on the internet server 205 is executed if the message range and option are designated in the contact content designation... Examples of the option designation include selection of English-to-Japanese translation...* The translation and transmission are dependent on the current state and event. Further see Fig. 10 where depending on the current state and if a transmission is detected (event), a translation may or may not occur.).

wherein the CTI control module comprises a CTI API (Application Programming Interface); and a working section for calling the CTI control functions in a given order from the CTI API and performing the basic telephone action in accordance with the main control module, the working section to control the interpretation module according to an input from the interpretation scenario management section. (Nagai teaches a working section for calling the CTI control functions in a given order from the CTI API and performing the basic telephone action in accordance with the main control module, column 9 lines 32-33 and Figure 3 item 317, ...*the system execution management program controls the operation of sub-programs in the CTI server...* column 18, lines 14-50 further teach that the working section (system execution management program) controls the interpretation module (IVR/ASR, 317 controls 312 which uses 310, also see column 21, lines 22-26) according to an input from the interpretation scenario management section (contact manager 312).)

Nagai fails to teach wherein, since the CTI control functions are configured as a job unit, basic telephone actions can be made in accordance with only one job unit without individually and repeatedly calling the CTI control functions.

However, Wood teaches wherein, since the CTI control functions are configured as a job unit, basic telephone actions can be made in accordance with only one job unit without individually and repeatedly calling the CTI control functions (Wood, column 5, lines 10-32, ... *The CGI scripts 38 are software procedures that receive high-level calls from the web server 34 and translate these into lower level operations to be executed in conjunction with the cache 40 and the call control system 32...* the CTI call control functions would have included basic telephone actions such as dialing, answering, and hanging up because a phone call cannot occur without at least these actions. The Java (JTT, column 4, lines 12-31) API includes classes for call control where the classes define a job unit. Therefore, Wood teaches that a job unit (from the Java API) can invoke basic telephone actions as a high level function to be translated into lower level (CTI) operations.).

Nagai and Wood are analogous art because both pertain to telephony call management. Therefore, it would have been obvious to someone of ordinary skill in the art at the time the invention was made to modify the control functions of the system execution management program (as taught by Nagai) with the CTI operations (as taught by Wood) to enable a user to initiate a telephone call through CTI software not installed locally (Wood, column 1, lines 33-51).

The combination of Nagai and Wood fails to teach a CTI API (Application Programming Interface) including CTI control functions for the CTI board.

However, Kishinsky teaches a CTI API (Application Programming Interface) including CTI control functions for the CTI board (Kishinsky, column 4 lines 38-39).

Kishinsky, Nagai, and Wood are analogous art because all pertain to telephone call processing between telecommunication centers. Therefore, it would have been obvious to someone of ordinary skill in the art at the time the invention was made to modify the control functions for CTI execution (as taught by the combination of Nagai and Wood) with the CTI API (as taught by Kishinsky) as an interface between the application software and the application platform to provide the user with a set of instructions enabling quick and easy access to a platform from a wide range of software applications by using the API.

As per claim 2, the combination of Nagai, Wood, and Kishinsky teaches the system as claimed in claim 1, wherein the CTI control module further comprises an event handler for generating the event in response to the button signal input through the CTI board. (column 18 line 63 – column 19 line 65 and column 17 lines 19-21, *the system send notification of a received transmission (event) and routes the transmission from a source to a receiver, through the PBX or telephone switchboard, using various contact means, including a telephone. Since a user indicates the number to be called, i.e. the receiver, by pushing buttons on the telephone, it is inherent that a button is pushed*);

As per claim 3, the combination of Nagai, Wood, and Kishinsky teaches the system as claimed in claim 2, and further teaches wherein the basic telephone action includes one or more of phone dialing (Nagai, column 18 lines 14-15), phone answering, phone disconnection or hanging up, button pressing (column 18 lines 39-41), button reading, tone detection, voice forward, voice store, speaking and listening.

As per claim 4, the combination of Nagai, Wood, and Kishinsky teaches the system as claimed in claim 1, wherein the interpretation module comprises a speech recognition section for recognizing the voice input through the CTI board and converting the recognized voice into text (Nagai, column 8 lines 62-67 and Figure 3 item 308);

a translation section for translating the text into the predetermined language (Nagai, column 9 lines 14-15);

and a speech synthesis section for synthesizing a speech from the text recognized through the speech recognition section or the text translated through the translation section and outputting the synthesized speech (Nagai, column 8 lines 59-61).

As per claim 7, Nagai discloses a third-party call control type simultaneous interpretation method, comprising the steps of:

a telephone connection step of establishing a traffic channel between a talker and a listener when the talker connects with a simultaneous interpretation system (Nagai, column 6 lines 52-57);

an automatic interpretation step of, when an event is generated in a CTI control module in response to a button signal input by the talker or listener through a CTI board to control the CTI board as a job unit comprising CTI control functions for performing a basic telephone function, translating an input voice of the talker or listener into a predetermined language in response to the generated event based on a predetermined interpretation scenario (Nagai, column 8 lines 62-67 and column 9 lines 14-15, *the system recognizes an incoming transmission message, detected by the PBX/ACD program, and recognizes a voice using the ASR processing board, then uses a program stored in memory to perform language translation (an event), where the transmission message, including the recognized voice, is processed according to contact conditions (predetermined interpretation scenario)*); and

an interpretation transmission step of controlling the CTI board in accordance with the interpretation scenario and transmitting the translated voice to the other party in accordance with the interpretation scenario, wherein the predetermined interpretation scenario includes a current state, a current state conversion action selected according to the event generated in the CTI module and a basic telephone action to be executed at a next state (Nagai, column 8 lines 62-67 and column 9 lines 14-15, *the system recognizes an incoming voice with the ASR processing board then uses a program stored in memory to perform language translation; the translation and transmission*

message type is determined based on the requested media type at the receiver which was previously registered and stored in memory, and the transmission message detected by the PBX/ACD program (predetermined interpretation scenario) Further see Fig. 10 where depending on the current state (contact adjustment state and subsequent action) the system performs the requisite action.),

wherein the transmission step includes selecting the current state conversion action and the basic telephone action for the next state in accordance with the predetermined interpretation scenario when the event is generated in the CTI module, and converting the current state into the net state in response to the selected current state conversion (Nagai, column 18 line 67 – column 21 line 65, *the system execution management program uses a contact manager (interpretation scenario management section) which includes user contact information indicating contact conditions (predetermined interpretation scenario), such as the sending and receiving devices. The contact manager is used by the system execution management program and the telephony agent program to determine the contact conditions and check for needed media conversions, depending on the sending and receiving devices and the type of message sent, before forwarding the transmission to the receiver (telephone action for the next state),*

wherein the current state and the event relate to the translating or the interpretation transmission (Nagai, column 21, lines 43-64, ...*That is, a process for adding designated processing to the transmission message on the work memory 305, on the groupware server 203, on the PBX/ACD 202 or on the internet server 205 is*

executed if the message range and option are designated in the contact content designation... Examples of the option designation include selection of English-to-Japanese translation... The translation and transmission are dependent on the current state and event. Further see Fig. 10 where depending on the current state and if a transmission is detected (event), a translation may or may not occur.),

wherein the CTI control module comprises a CTI API (Application Programming Interface); and a working section for calling the CTI control functions in a given order from the CTI API and performing the basic telephone action in accordance with the main control module; and controlling to control the interpretation module with the working section according to an input from the interpretation scenario management section (Nagai teaches a working section for calling the CTI control functions in a given order from the CTI API and performing the basic telephone action in accordance with the main control module, column 9 lines 32-33 and Figure 3 item 317, *...the system execution management program controls the operation of sub-programs in the CTI server...* column 18, lines 14-50 further teach that the working section (system execution management program) controls the interpretation module (IVR/ASR, 317 controls 312 which uses 310, also see column 21, lines 22-26) according to an input from the interpretation scenario management section (contact manager 312).).

Nagai fails to teach wherein, since the CTI control functions are configured as a job unit, basic telephone actions can be made in accordance with only one job unit without individually and repeatedly calling the CTI control functions.

However, Wood teaches wherein, since the CTI control functions are configured as a job unit, basic telephone actions can be made in accordance with only one job unit without individually and repeatedly calling the CTI control functions (Wood, column 5, lines 10-32, ... *The CGI scripts 38 are software procedures that receive high-level calls from the web server 34 and translate these into lower level operations to be executed in conjunction with the cache 40 and the call control system 32...* the CTI call control functions would have included basic telephone actions such as dialing, answering, and hanging up because a phone call cannot occur without at least these actions. The Java (JTT, column 4, lines 12-31) API includes classes for call control where the classes define a job unit. Therefore, Wood teaches that a job unit (from the Java API) can invoke basic telephone actions as a high level function to be translated into lower level (CTI) operations.).

Nagai and Wood are analogous art because both pertain to telephony call management. Therefore, it would have been obvious to someone of ordinary skill in the art at the time the invention was made to modify the control functions of the system execution management program (as taught by Nagai) with the CTI operations (as taught by Wood) to enable a user to initiate a telephone call through CTI software not installed locally (Wood, column 1, lines 33-51).

The combination of Nagai and Wood fails to teach a CTI API (Application Programming Interface) including CTI control functions for the CTI board.

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Kishinsky, Nagai, and Wood are analogous art because all pertain to telephone call processing between telecommunication centers. Therefore, it would have been obvious to someone of ordinary skill in the art at the time the invention was made to modify the control functions for CTI execution (as taught by the combination of Nagai and Wood) with the CTI API (as taught by Kishinsky) as an interface between the application software and the application platform to provide the user with a set of instructions enabling quick and easy access to a platform from a wide range of software applications by using the API.

As per claim 8, Nagai discloses the method as claimed in claim 7, wherein the automatic interpretation step comprises:

recognizing the voice and translating the recognized voice into the predetermined language through an interpretation module in accordance with the predetermined interpretation scenario (Nagai, column 8 lines 62-67 and column 9 lines 14-15, *the system recognizes an incoming voice with ASR processing board then uses a program stored in memory to perform language translation, the translation determined based on the requested media type at the receiver which was previously registered and stored in memory*).

Nagai does not explicitly disclose recording the input voice of the talker or listener in response to the event based on the predetermined interpretation scenario

when the event is generated in the CTI control module in response to the button signal input by the talker or listener through the CTI board. However, Nagai does disclose that a groupware control program collects information, such as sender address, telephone number etc., and saves it in the work memory (Nagai, column 19 lines 19-25). This suggests that input data can be stored for later processing.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to record the user or talkers voice in response to an event in Nagai, since it would enable the system to store vocal input for future processing, preventing the loss of vocal input information when the system cannot process the input in real time.

As per claim 9, the combination of Nagai, Wood, and Kishinsky discloses the method as claimed in claim 7 and further teaches wherein the translating step comprises: recognizing the recorded voice and converting the recognized voice into text (Nagai, column 8 lines 62-67); translating the text into the predetermined language (Nagai, column 9 lines 14-15); and synthesizing a speech from the translated text (Nagai, column 8 lines 59-61).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to PTO-892, Notice of References Cited for a listing of analogous art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREG A. BORSETTI whose telephone number is (571)270-3885, (FAX: 571-270-4885). The examiner can normally be reached on Monday - Friday (8am - 5pm Eastern Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHEMOND DORVIL can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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